

REMARKS

The Official Action mailed September 14, 2011, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on June 30, 2006; September 3, 2006 and June 16, 2011.

Claims 14-39 were pending in the present application prior to the above amendment. Claims 25 and 37 have been canceled without prejudice or disclaimer and claims 14, 15, 26 and 27 have been amended to better recite the features of the present invention. Accordingly, claims 14-24, 26-36, 38 and 39 are now pending in the present application, of which claims 14, 15, 26 and 27 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 14-23, 25-35 and 37-39 as obvious based on the combination of U.S. Publication No. 2003/0216012 to Sasaki, U.S. Publication No. 2004/0266223 to Tanaka '233, U.S. Publication No. 2003/0086182 to Tanaka '182 and U.S. Publication No. 2006/0138102 to Sawada. The Applicant respectfully traverses the rejection because a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the

prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

With respect to independent claims 14, 15, 26 and 27, the prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Specifically, independent claims 14 and 15 are amended to recite the subject matter of canceled dependent claim 25 in which "*an image at the slit and an image on the semiconductor film are in a conjugated relation by the condensing lens.*" An advantage of this feature is described, for example, in paragraph [0152] of Applicant's original specification. Similarly, independent claims 26 and 27 are amended to recite the feature of canceled dependent claim 37 in which "*an image at the slit and an image on the irradiation surface are in a conjugated relation by the condensing lens.*"

Regarding the rejection of independent claim 14, the Official Action contends that Sasaki discloses blocking end portions of a first laser beam emitted from a laser oscillator (71) by a lens (76). However, the Official Action concedes that Sasaki does not teach blocking end portions by a slit. The Official Action further contends that it would have been obvious to one of ordinary skill in the art to have combined the teachings of Sasaki and Tanaka '223 (pp. 2-3; Paper No. 20110829). That is, it appears that the Official Action is taking the position that lens (76) in Sasaki would be replaced by the slit taught in Tanaka '223. The Applicant respectfully disagrees for the following reason.

If lens (76) in Sasaki were replaced by a slit such as in Tanaka '223 for blocking end portions of a first laser beam, the beam spot of the laser beam after passing

through the focus optical system (74) in Sasaki would differ from what was specifically designed for since one of the two cylindrical lenses (the one arranged perpendicular to lens 75) would necessarily be removed from the focus optical system shown in FIG. 22 in Sasaki. Thus, the resultant optical system would no longer function as intended. This is because the purpose of cylindrical lens (76) is not to block end portions of a first laser beam, as alleged, but to shape and form the beam spots into an elliptical shape (see paragraph [0133] of Sasaki). The asserted combination would defeat this intended function.

The test for obviousness is not whether the references “could have been” combined or modified, but rather whether the references should have been. As noted in MPEP § 2143.01, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. KSR International Co. v. Teleflex Inc., 550 U.S. 398, 82 USPQ2d 1385 (2007). Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. In re Kahn, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006). However, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Similarly, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

In this case, one of ordinary skill in the art would not have been predictably led to the combination asserted as such an alleged combination would appear to change the principle of operation of the reference being modified.

Regarding the rejection against dependent claims 25 and 37 over Sasaki and Tanaka '223, which features are now incorporated into independent claims 14, 15, 26 and 27, this rejection is improper for the following reason.

The Official Action (pg. 8; Paper No. 20110829) contends that Sasaki disclose that **an image at the mirror** and an image on the irradiation surface are in a conjugated relation by the condensing lens (77) in Figure 22, and paragraphs [0132]-[0134]. However, the subject matter of canceled claim 25 (now within claims 14 and 15) recites a feature of "**an image at the slit** and an image on the irradiation surface are in a conjugated relation by the condensing lens." The identified passages (Figure 22 and paragraphs [0132]-[0134]) in Sasaki do not appear to teach or suggest such a claimed relationship. That is, while paragraphs [0132]-[0134] in Sasaki may disclose a structure of a laser device (70) shown in Figure 22 used for crystallizing a semiconductor, it does not disclose placing a slit in a position that an image at the slit and an image on the semiconductor film (or on the irradiation surface) would be in a conjugated relation by the condensing lens. Therefore, one skilled in the art would not have been predictably led to such a feature from a mere combination of Sasaki and Tanaka '223.

Moreover, even if lens (76) was replaced with a slit in Tanaka '223 and the optical system in Sasaki functioned as intended, it would appear that there still would not necessarily be an express or inherent disclosure of the amended feature regarding the conjugated relationship. Thus, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. The Patent Office has, however, not provided a sufficient rationale or showing that such a result necessarily and predictably would result.

Because Sasaki, Tanaka '233, Tanaka '182 and Sawada do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained with respect to independent claims 14, 15, 26 and 27. Therefore, Applicant believes the rejection of claims 14, 15, 26 and 27 and claims dependent therefrom is not proper.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,



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